



CHANGING FACES OF LEARNING IN KERALA IN THE PANDEMIC SCENARIO

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Introduction

“What sculpture is to a block of marble, education is to the human soul. The philosopher, the saint, the hero, the wise and the good or the great very often lie hid and concealed in a plebian, which a proper education might have disinterred and brought to light” - Addison¹.

Propounders of endogenous growth hold the view that growth of an economy is primarily the result of endogenous and not exogenous/external forces. They reaffirm faith in investment in human capital, particularly in education which plays a significant role in accelerating the pace of growth process². The same also leads to the evolution of productive labour, better employment opportunities, higher salaries, reduced income inequalities and improved living conditions. Apart from these, education has some spill over benefits as well.

Taking these benefits into consideration, the Governments across the globe have accepted education as the most powerful tool in the creation of an egalitarian society. ‘Achieving inclusive and quality education for all’ is included as one among the 17 Sustainable Development Goals (SDGs), set by the UN General assembly in 2015 as a blue print for future³. It envisages free and universal primary and secondary schooling by 2030. In India, the 86th Constitutional Amendment Act of 2002 calls for free and compulsory education of all children in the age group of 6-14 years as a fundamental right. To bring the legislation into effect, The Right of Children to Free and Compulsory Education (RTE) Act was passed by the Parliament in 2009 which came into force on April 1, 2010.

Coming to Kerala scenario, the progressive educational policies of the enlightened rulers of the erstwhile states of Travancore and Cochin and the educational activities initiated by the Christian missionaries and other social organizations yielded remarkable development of education even before independence. Knowledge revolution in Kerala is one of the strong pillars of the widely acclaimed “Kerala Model of Development”. Having been impressed by the performance of the state and with evidence for strong inter-dependencies between education and economic development, economists like John Lewis⁴ recommended Keralisation of Indian educational system. This short note presents a cursory look at the changing faces of the education scene of Kerala in the current pandemic situation, focusing on a highly select set of issues.

The efforts to strengthen various sub sectors of education were going on well and focused mostly on traditional classroom learning. The COVID pandemic was a major blow to this normal functioning of the education sector. Closure of educational institutions in accordance with the social distancing norms halted the formal learning in the State. This closure of educational institutions though temporary has resulted in preventing children, adolescents and youth from fulfilling their right to quality, safe and inclusive education. The COVID-19 crisis has thus pushed the efforts towards realizing the Sustainable Development Goal into jeopardy more than ever before.

Despite the differences in the severity of the spread, 1.2 billion children in 186 countries are out of their classrooms – nearly 91% of world’s student population. The sudden change in the sphere of education has finally resulted in the emergence of e-learning undertaken on several kinds of digital platforms. The added advantage of increased retention of information might lead to the persistence of this system in the post pandemic phases too.

State of art in education sector in pre COVID situation

Before entering into the current turbulent situation inflicted by the entry of corona virus and the resulting importance of e learning, let us pass through the educational scene that was prevailing in the different levels of learning in the pre COVID season in our state.

As per the School Education Quality Index (SEQI)⁵ which was developed by NITI Aayog to evaluate the performance of states in the school education sector, Kerala recorded an impressive performance by securing 82.17 per cent score and the top position. As per the report, the State scored 100 per cent in terms of the transition of students from primary to secondary classes and 95.4 per cent in inclusive education. There is an increase in the enrolment of students in schools in 2019-20 to 37.17 lakh from 37.03 lakh in 2018-19.

Recognising the importance of IT in the education sector, several programmes were in existence at the level of school/elementary education. The high-tech school project aims to ensure IT-enabled education facilities including broadband connectivity for children in classes VIII to XII. The beneficiaries were 4752 Government schools in the High School, Higher Secondary and Vocational Higher Secondary streams. In addition to this, in order to set up computer labs in all primary and upper primary schools in the State, an amount of Rs 292 crore has been granted by the Government.

There exists the e-Resource portal ‘Samagra’⁶ which is a platform to enhance learning and communication in Hi-Tech classrooms with digital resources for students from classes 1 to 12. A holistic approach of education is materialized through Samagra, which also provides Content Delivery Network (CDN).

KITE (Kerala Infrastructure and Technology for Education) is a Government of Kerala enterprise set up to foster ICT enabled education in the State schools as well as for upgradation of physical infrastructure with the help of BSNL and Rail Tel. KITE’s Open Online course (KOOL), an online training programme, has been set up to provide training to teachers. Another initiative of KITE is the Little KITEs IT Clubs which tries to instil genuine interest and creativity in IT field among students.

KITE also runs VICTERS educational channel, which is telecast 24/7 from February 2019 onwards. The channel airs a plethora of educational video contents which is systematically developed and vetted and includes contents from regional, national and international levels.

Coming to the area of higher education, there exists a wide variety of courses as well as divergent branches of learning. Any single authority cannot manage the complete functioning of all the branches and hence we can see quite a handful of Universities operating in the arts, science and professional fields of education. However the idea of Lerner Ecosystem campuses of our Department of Higher Education is expected to give priority to digital teaching, learning ecosystem and cross-disciplinary dialogues.

Ideas deserving mention in the higher education sector of Kerala is the existence of initiatives like ASAP, Erudite scholarship, Prabudhatha, Outcome based education programmes etc initiated by the State authorities. Another novel idea is the concept of Cluster of Colleges as an arrangement for mutual sharing of resources among neighbouring colleges with a view to optimum utilization of the available facilities for enhancing enrolment and quality of education. The basic objectives of this initiative are our national goals of access, equity and quality. Added is the initiatives and programmes operational in different universities with the support of higher educational agencies like UGC, AICTE, RUSA, DME etc to plug in technology aided education into our system of learning so as to make it competent with the international standards. All these efforts are surging ahead to bring in modern technicalities of learning in our higher education system.

Volume of learners

Any problem or issue can be properly understood only after we have an idea about those involved/ affected. In this case also, we can have an understanding about the emerging situation and issues in the education sector of Kerala only if we have an idea about the volume of learners who are affected by the pandemic situation.

Table 1

Volume of learners

Course	Total no. of students
Elementary Education	3703818
Higher Secondary	3,84,128.
Arts & Science Colleges	323152
Polytechnic	32858
Engineering Colleges	30195 per year
Medical Institutions	2850 per year
Paramedical Courses	4200 per year

Source : Government documents⁷

Total number of students enrolled in schools in Kerala from Standards 1 to 10 was 37.03 lakh in 2019-20 and 3.8 lakh in higher secondary section. There were 3.2 lakh students enrolled for higher education programmes (both graduate and postgraduate programmes) in colleges of Kerala in the Arts, Science and Commerce streams. Added to this is the mass of students engaged in professional courses which comes to more than a lakh.

Now we are to move on to understand the paradigm shift of convergence from traditional to technology induced teaching-learning environment in the education academic landscape of the state which came into existence with the onslaught of the COVID situation. Experts think that it is going to turn the world into another techno-economic culture. Higher education cannot be independent of the feature, structure and dynamic of the emerging alternative. To achieve this, our higher education institutions are to be transformed to knowledge dissemination centres and shifted to the status of 'learning paradigms'.

Preparation for e- Learning

1. Changing needs of infrastructure facilities

We are to look into the facilities available at the personal/ individual front so as to understand the volume and spread of online education among learners during this pandemic period. The term “individual” is particularly important in the face of the “New Normal” concepts of social distancing and Stay Home - Stay Safe. Hence a look into the prospective sales of computers and other infrastructural facilities will be helpful.

A report by KPMG and Google titled ‘Online Education in India: 2021’⁸ pegged the laptop as a preferred device for consumption of online education in India. Among device preferences, laptops were followed by smart phone.

As per latest available data from International Data Corporation’s (IDC)⁹, India’s traditional PC market fell 16.7 per cent during January-March 2020. The private sector, however, posted better shipment numbers with starting of work from home in March. Further, in anticipation of a nationwide lockdown, many businesses had increased their orders for notebooks, which resulted in a 7.1 per cent on-year increase for this segment.

On consumer side, a lot of people are going for e-learning presenting an upsurge of online education which appears to be an immediate requirement. However, given the lower disposable incomes in India, government support through various public initiatives will be fundamental for the penetration of increase in the usage of personal computers in the country.

The company Coconics Pvt Ltd is a joint-venture between the Kerala government through its entities Keltron and Kerala State Industrial Development Corporation (KSIDC) and private companies UST Global and Acceleron Labs. The sharp increase in queries for Coconics’ products has been a function of rising interest among various government agencies and bodies towards India-made goods as well as a shift towards online education and work from home in aftermath of the nationwide lockdown. Coconics, is now working to bring out Rs 15,000 laptops for the education market.

To facilitate online education during the lockdown period, the Kerala State Higher Education Council conducted a week long Faculty Development Programme for the faculty to support online education in higher education institutions. Study materials are also provided online in their portal for usage of students and teachers.

Sudden increase in the number of subscribers as seen in the statistics of different service providers is ample evidence to the spread of online education. Similar is the increase in the sale of mobile phones which serves the purpose of being an aid to online learning.

Coming to the case of our state, the Government has introduced the Kerala Fibre Optic Network Project pegged at Rs 1548 crore which is to provide internet connection to every household by December 2020. Going by the recent report of the Internet and Mobile Association of India (IAMAI) titled “Indian Internet 2019”¹⁰, Kerala is already halfway to its goal and also shows an internet penetration rate of 54% among individuals aged above 12 years of age. TRAI data of June 2019¹¹ also shows that Kerala stands fourth among all Telecom service areas in terms of Internet subscriptions per 100 population – with a figure of about 70 people.

2. Changing Pattern of Actions

Looking through the infrastructural facilities, let us now settle down to the actual problems in the conduct of online learning. At the onset, majority is of the opinion that the rapid shift to e-learning without much preparation and technical know-how/ support is bound to have a constrained impact on sustainable growth. However many are acknowledging the possibility of the coexistence of offline learning as well as e-learning. It is expected to produce a hybrid model of education with several fringe benefits too.

The sudden closure of educational institutions in our state in the second week of March has inflicted a severe blow to the teeming thousands of learners at different levels of learning. This act affected the final level examinations of all classes as well as the entrance examinations for various courses. Though adamant steps from the part of authorities have led to successful conduct of final year/semester examination of many levels, the results of many are yet awaited.

The beginning of academic calendar is expected to happen in the month of June every year. This year also saw these beginnings – but in a “new normal” attire; that of online learning. The study classes of all levels were directed to start operation from June. The online mode of learning up to Std.XII follows a unified pattern as followed in KITE programme and is broadcasted in Victers channel. The point to note is that this type of uniformity in teaching is possible only up to the secondary level up to which the Kerala Government follows a unified syllabus and text book.

After higher secondary, learners are offered a wide variety with regard to the type of courses available for study. Difficulty is faced in the conduct of online classes for students of science faculty. Their practical's session remains as a question mark. Similar is the difficulty with regard to classes of professional courses especially in the area of medical education. Net Based Learning Internet facility with adequate speed and National Knowledge Network (NKN) may be provided wherever applicable for the medical students. Added is the diversity with regard to the type of universities and other formats of academics. Hence the authorities are not in a position to broadcast any such unified methods of online learning as in the case of elementary education.

At this juncture, the authorities are forced to develop a two pronged strategy – that of supporting the smooth conduct of online learning with some amount of uniformity and accessibility to all as well as take steps towards the re opening of educational institutions. Being an altogether new initiative, this requires an extended gathering of information regarding online learning, research on related issues and also learning from international best practices.

Challenges

At the national level, **Digital India is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. The education sector too was charting programmes with this vision in view.**

The sudden shift in the method of learning has led to the deployment of a mix of technology and tools of learning systems. Despite the weightage of quicker means of learning, e-learning is faced with certain challenges.

Foremost among them is the struggle of technology to participate in digital learning. Gaining access to reliable internet connection stands as a blocking stone. This is mainly experienced by the students from under privileged or disadvantaged backgrounds.

Receipt of bare minimum income in the family adds to the list of difficulties pointing to the scarcity of monetary resources available for online learning. The poor households cannot afford the purchase of computer or smart phone and they face the pathetic consequences of digital divide. The missed opportunities are bound to create economic and social stress among the student community. However this difficulty in accessibility and shortage of financial resources is offset by the increased rate of retention and faster learning online as also the several measures undertaken by local authorities. Mention is to be made here about many students who are presented with TV/ computer by local authorities, politicians, academicians or other good Samaritans of the society. The part played by enterprises like Coconics spread optimism in this area.

From the part of learners, inclusiveness is their necessary keyword. The problem of accessibility is also solved by roping in of BSNL and Rail Tel for broadband connectivity in schools. The students are also given access to the communication facilities available at public utility places like library and reading rooms, neighbouring community halls etc. With rapid spread of internet access even to the remote corners of the country, accessibility will cease to be an issue.

Preparing them to participate and compete in the international field of education is another problem that comes to the forefront. Improving the quality of basic education provided here and further supporting the world wide mobility of students needs to be given proper attention. Establishment of quality assurance systems and benchmarks for online learning should be given priority. At the same time care should be taken to preserve the higher levels of knowledge and experience attained by our traditional systems of knowledge.

All levels of learners are facing closure of educational institutions without an end in near future. The entire pedagogy of teaching as well as assessment methodologies is much affected by this action. This is bound to have a long term impact on the continuity of learning with far reaching economic and societal consequences. Overseas learning is another segment to be examined with caution. The serious and dangerous situations faced by our students in foreign countries which are hard hit by the pandemic and the type of policies and support offered by our national as well as foreign governments of the concerned countries will leave an impact on the future demand for overseas learning.

The defacto switching to the system of online learning will leave one third of the teaching faculty redundant with availability of online resources and classes. Online instructions from renowned academicians would compel the faculty to gain competence in modern modes of teaching as well as subject knowledge. The Governments can/ might think about cutting down public expenditure by downsizing the faculty population.

This exposure to international arena of knowledge will blur the disciplinary borders in and will demand cross disciplinary literacy among teachers and adaptability among students. Research particularly will have special focus on emerging knowledge areas both at micro and macro levels.

The picture of education affecting the different phases of life of individuals has called for the need for a multi pronged strategy to rebuild our education system while upholding its continuity and accessibility. Faculties are to be provided with facilities for open source digital learning solutions and adoption of various types of Learning Management Systems. The projection should be for the availability of a wide variety of choices in innovative learning models and systems.

Policy Solutions

The route map for the onward journey of education sector necessitates an assessment of the existing situation along with its needs and priorities and development of a response plan thereof. A co-ordination of responses regarding the continuity of alternative modes of learning and the different delivery systems is to follow.

At the outset, we should have an idea about the volume of learners at each level of learning for the successful implementation of the programme. In the case of our State, current statistics of the same are easily available though the volume appears to be seemingly large. In the meantime a quick scan through the volume of students' participation will help have a check on their continuity of learning. The online learning is to be supported by data from survey conducted to gauge the effectiveness of online learning.

The delivery of online learning can be in different ways. Decision is to be taken with regard to different choices like one way/ two way interaction, offline / online mode, high / low level of technology involved etc depending upon the particular circumstances of learners in each group. Home learning modalities can be in the form of printed materials, TV, radio, digital books, phone learning apps, digital class rooms, video conferencing and also through various modes of social media. After taking steps for necessary infrastructural support, definite plan is to be chalked out for the successful functioning of online learning classes.

While making a framework for online learning, technical support is required for development of quality content. For this, conduct of virtual trainings and workshops for teachers are to be done along with sharing of best practices. The activities of KITE, Samagra, etc in the level of elementary education deserves special mention here. Similar supportive measures are to be taken for higher education sectors also which is broadly underway now in the portals of Higher Education Council.

Promotional activities from the part of all stake holders for the success of online learning should take a supportive run. Parents are to be well equipped about guidance on care and learning opportunities for their children. Only with support from different stakeholders of the educational sector, can this new venture attain success. Recently UNICEF is seen planning to undertake a survey on the conduct of online education in Kerala to gauge its effective functioning. Dr. Iqbal Committee is also under operation to review the stands of our Government on the field of online higher education.

The closure of educational institutions for a long time is indeed bound to have an impact on their ability to learn. Lack of interaction with fellow students and dislocations would necessarily have left an impact on their mental health. Transmission and delivery of various forms of psychosocial support measures is essential to bring them back to the stadium of learning. With regard to elementary learners, teachers and members of local authority along with

PTA members can initiate participation by making personal visits to them. Though not highly possible, a personal interaction from the part of the teaching community can instigate the same from advanced classes of learning also.

With so much being commented on the successful functioning of online education, let us now move to the second task of the authorities. The re-opening of educational institutions requires a scan through the overall health situation based on cross sectoral and contextual evidences. The risks and benefits must be properly weighed to arrive at decisions. A conducive environment which promotes safe learning operations reaching out to all the students is a necessity. Reopening also requires development of alternative academic calendars and capacity building of teachers on topics related to safe and new normal academic sessions. The educational institutions are to be properly disinfected and strict policies are to be followed with regard to wash protocol, social distancing, attendance protocols, working patterns etc. By undertaking an analytical understanding of the level of knowledge attained by the students during period of online learning, remedial coaching is to be provided wherever necessary.

After calling for responses or opinions, decision has to be taken regarding the reopening dates and other formalities. Should all educational institutions reopen on the same date? Should those at low risk areas open first? Should reopening be in a phased manner? All these are queries that require proper answers. At any cost, the response of the local bodies/ community is to be given ear before arriving at a decision. Circulating mechanisms are to be operated for the propaganda of operation guidelines on safety.

It is important for governments to formulate adaptive, coherent, effective and equitable education responses to the current crisis and address the challenges that so many children face, including the most marginalized. Needless to say, the pandemic has transformed the centuries-old, chalk-talk teaching model to one driven by technology. With increase in the demand for provision of education, there took place the development of e-learning which made education more accessible and contextualized.

The degree of effectiveness of online learning varies with groups. It is necessary to have a structured environment incorporating inclusion, personalization and intelligence for the learners. Motivation is to be triggered in this group with the engagement of technological tools. In the face of the rapidly changing scenario of the 21st Century, the fate of an individual and society will be determined by the volume and quality of knowledge that each individual possess. Hence new policies should aim at the universalisation of education at all levels extending to the poor and marginalized masses in a big way. Education is going to be digital in the foreseeable future and with the right infrastructure and policies in place, we would be better prepared to handle it.

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